

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) An apparatus for the evaporative cooling of a liquid product, comprising a vacuum chamber (4) possessing upper and lower end walls and divided into a first, centrally positioned space (6) and a second space (7) which concentrically surrounds the first space (6) and in which both of the first and second spaces (6, 7) are open towards the upper end wall (2) of the vacuum chamber (4), and the first space (6) has an outlet for condensed steam (25) and the second space (7) has an inlet (11) for steamed product, as well as an outlet (12) for the product, ~~the apparatus further including and~~ a circulation circuit for coolant liquid, ~~characterised in that~~ wherein the first space (6) is extended downwards so that it extends at least as long below the bottom end wall (4) of the vacuum chamber (4) as the extent of the first space (6) inside the vacuum chamber (4).

2. (Currently Amended) The apparatus as claimed in Claim 1, ~~characterised in that~~ wherein the first space (6) has an upper part (9) located inside the vacuum chamber (4) and a lower part (8) located beneath the bottom end wall (4) of the vacuum chamber (4).

3. (Currently Amended) The apparatus as claimed in Claim 1, ~~characterised in that~~ wherein the inlet (11) for product is tangentially disposed in the a side wall (3) of the vacuum chamber (4) and is formed as a vertical gap.

4. (Currently Amended) The apparatus as claimed in Claim 1, ~~characterised in that~~ wherein the circulation circuit for coolant water discharges with ~~the~~ a conduit (20) in the an upper region of the a lower part (8) of the first space (6).

5. (Currently Amended) The apparatus as claimed in Claim 1, ~~characterised in that~~
wherein the outlet (25) for condensed steam is a spillway overflow.

6. (Currently Amended) The apparatus as claimed in Claim 4, ~~characterised in that~~
wherein the conduit (20) is provided in its upper region with a number of downwardly
directed apertures (21).

7. (Currently Amended) The apparatus as claimed in Claim 4, ~~characterised in that~~
wherein the circulation circuit for coolant liquid includes an outlet (15), conduits (16, 20, 28),
a centrifugal pump (17), as well as a cooler (30).